

Air Force Materiel

War Winning Capabilities ... On Time, On Cost

Command



CONTRACT TYPES

Module Lead:
OO-ALC/PKCA
August 2007

***Integrity ~ Service ~
Excellence***



Course Overview



- **Length: 2 Hours**
- **Method of delivery: Slide Presentation**
- **Course contents:**
 - Selecting a contract type after analyzing many factors
 - The Requirement
 - Production Stages
 - Risk
 - Competitive or Non-Competitive
 - Industrial Base, Market Research, Technology
 - Type of funds
 - ETC
 - Handout of Contract Types



Overview



- **Selecting Contract Types**
- **Contract Risk**
- **Factors in Selecting Contract Type**
- **Contract Type by FAR Part**
- **Fixed Price Contracts**
- **Cost Reimbursement Contracts**
- **Other Contract Vehicles and Agreements**



Selecting Contract Types

- **Degree and Timing of Contractor Responsibility**



Risk

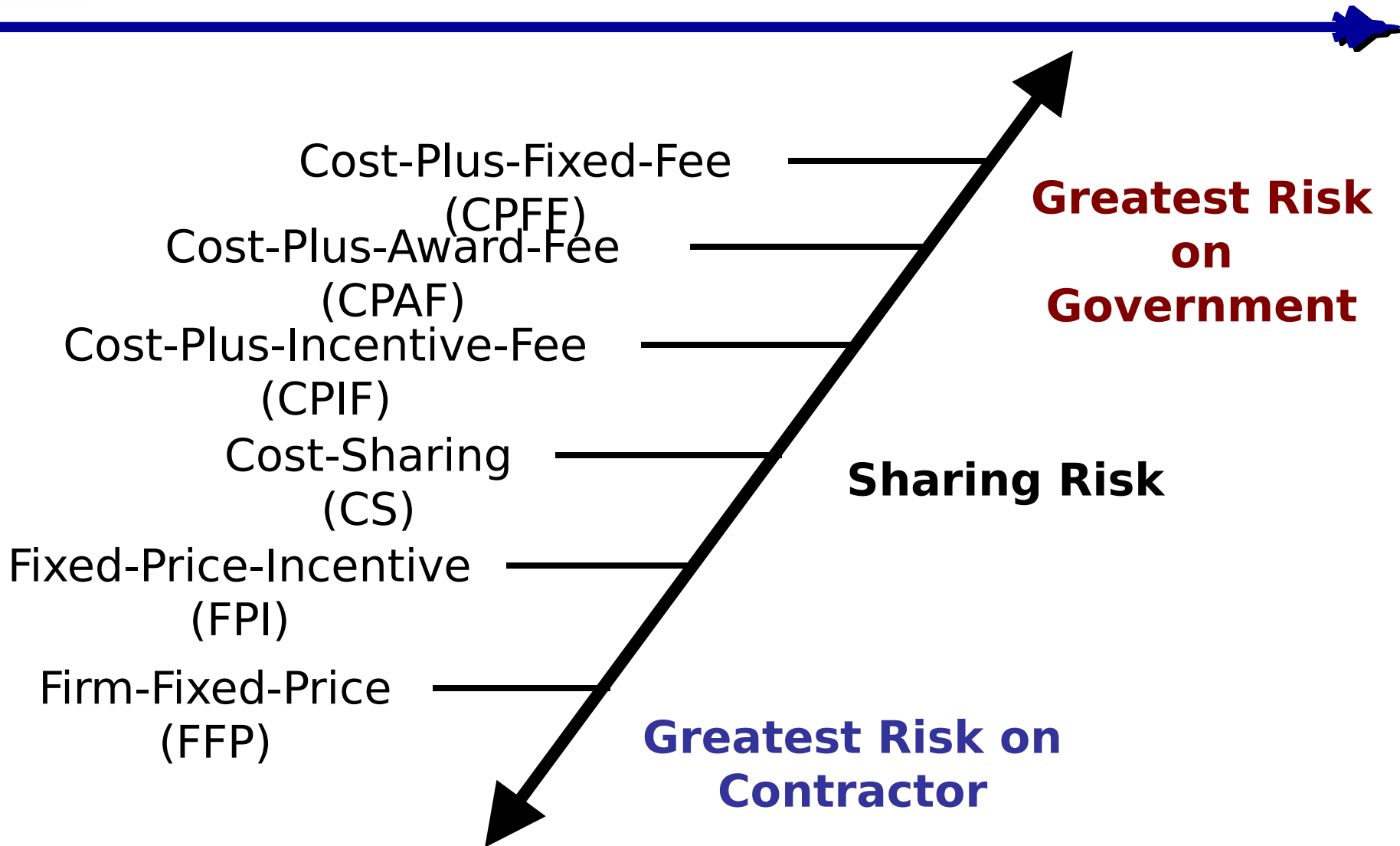
- **Amount & Nature of Profit Incentive Encouraging Contractor to Achieve Goal**



Reward



Profile in Contract Risk





Cost Risk & Contract Type

COST RISK AND CONTRACT TYPE						
Cost Risk	High _____ Low					
Requirement Definition	Vague _____ Well-defined					
Production Stages	Concept Studies & Basic Research	Exploratory Development	Test/ Demonstration	Full-scale Development	Full Production	Follow-on Production
Contract Type	Varied	CPFF	CPIF, FPIF	CPIF, FPIF, FFP	FFP, FPIF, FPEPA	FFP, FPIF, FPEPA



Factors in Selecting Contract Types

Price Competition

- Normally, price competition results in realistic pricing

Price Analysis

- With or without competition, may provide selection basis

Cost Analysis

- In the absence of price competition or price analysis



More Factors in Selecting Contract Types

Type & Complexity of the Requirement

- Complex contracts generally involves more Government risk

Urgency of the Requirement

- Government may choose to take on more of the risk

Contractor's Technical Capability and Financial Responsibility

Extent & Nature of Proposed Subcontracting

- Contract should be selected accordingly

FAR 16.104



More Factors in Selecting Contract Types



Adequacy of the Contractor's Accounting System

- Before agreeing on any contract type other than FFP, the CO should make sure the contractor can produce timely cost data in the form required by the contract.

Concurrent Contracts

- Consider pricing arrangements of other operating contracts

Acquisition History

- Contractor risk usually decreases with repetitive acquisition



Contract Type by FAR Part

Contracts under FAR 13 would use FFP, if determined to be commercial items and any contract type if non-commercial

FAR 12 Commercial Items	FAR 14 Sealed Bidding	FAR 15 Contract By Negotiation
<ul style="list-style-type: none">• Firm Fixed Price• Fixed Price w/EPA	<ul style="list-style-type: none">• Firm Fixed Price• Fixed Price w/ EPA	<ul style="list-style-type: none">• Any contract type or combination of types



Primary Contract Types

“There are 2 Primary Contract Types”

**Fixed
Price
Contracts**

**Cost
Reimburseme
nt
Contracts**



Fixed Price Contracts

**FAR
16.2**



Fixed Price Contracts



Firm Fixed Price	Fixed Price w/Award Fee
Fixed Price w/Economic Price Adjustment	Fixed Price w/Price Re-determination
Fixed Price Incentive	Fixed Price Level of Effort



Firm Fixed Price

Description

- **Price not subject to adjustment**
- **Contractor at maximum risk and full responsibility**
 - For profit
 - For loss
- **Minimum administrative burden on parties**
- **Contracts from sealed bidding can be only FFP, FP w/EPA**

Application

“A firm-fixed-price contract is suitable for acquiring **commercial items** or ...other supplies or services on the basis of reasonably **definite** functional or **detailed** specifications when the contracting officer can establish **fair and reasonable prices at the outset...**”

FAR 16.202



Fixed Price Example

A requirement exists for 35 portable toilets to be placed at ball field visitor gates, and other locations on base. An additional 100 are needed on a one time basis for the Armed Forces Day Open House.



Fixed Price w/Economic Price Adjustment (EPA)

Description

- **Fixed price contract with upward or downward revisions**
 - Based on specified contingencies (not duplicated in base price)
- **Three general types of Economic Price Adjustments**
 - Established prices
 - Actual Costs of Labor or Materials
 - Cost indexes of Labor or Materials
- **Commercial Items must be procured using FFP or FP w/ EPA**

Application

“A fixed-price with economic price adjustment may be used when (i) there is **serious doubt** concerning the **stability of market** or **labor conditions** that will exist during an extended period of contract performance, and (ii) **contingencies** that would otherwise be include in the contract price can be identified and **covered separately** in the contract.”

FAR 16.203



Adjustments under Fixed Price with EPA

**1. Restricted to
“Industry-Wide
Contingencies”**

**2. Material & Labor
contingencies
should be beyond
contractor’s
control**

**3. CO must determine
its necessary to
protect the
contractor and
government**

**4. Or, CO must provide
for price adjustment
in case of changes
in contractor’s
established prices**



Fixed Price w/EPA Example

A requirement for a follow-on production aircraft component contains **nickel** as one of the key materials in the manufacture of the items. Contract performance is expected to be for a period of 5 years.



Incentive Contracts

Description

- When Firm Fixed Price is not appropriate
- Supplies and services can be acquired at lower costs by relating profit to performance
- Delivery and Technical performance can be acquired at lower costs by relating profit to performance

Incentives used:

1. Cost Incentives
2. Performance Incentives
3. Delivery Incentives
4. Multiple Incentives



Fixed Price Incentive (Firm & Successive Target)

• **Firm Target**

Specifies

- Target Cost**
- Target Profit**
- Price Ceiling**
- Profit Adjustment Formula**

Upon completion & final cost, final price is determined by formula

If final price exceeds Price Ceiling, the

contractor suffers

• **Successive Target**

Negotiate

- Initial Target Cost**
- Initial Target Profit**
- Profit Adjustment Formula (floor/ceiling)**
- Production Point Price Ceiling**

At Production Point, negotiate “firm target”

- Firm Target cost**
- Firm Target profit**



Fixed Price Incentive Firm (FPIF)

Description

- **The contractor has an opportunity to make a higher profit by completing the work below the ceiling price and/or meeting OBJECTIVE performance targets**
- **Once price exceeds Fixed Price ceiling, the contractor is responsible for all allowable costs over price ceiling**



Fixed Price Incentive Firm (FPIF)

ELEMENTS

Target Cost = Projected cost

Target Profit = Estimated profit for Target Cost

Price Ceiling = Not-to-Exceed (NTE) Price

Profit Adjustment Formula = Share Ratio

**Or, how the contractor shares in
Cost overruns & underruns**



FPIF Formulas

**REFER TO
HANDOUT**



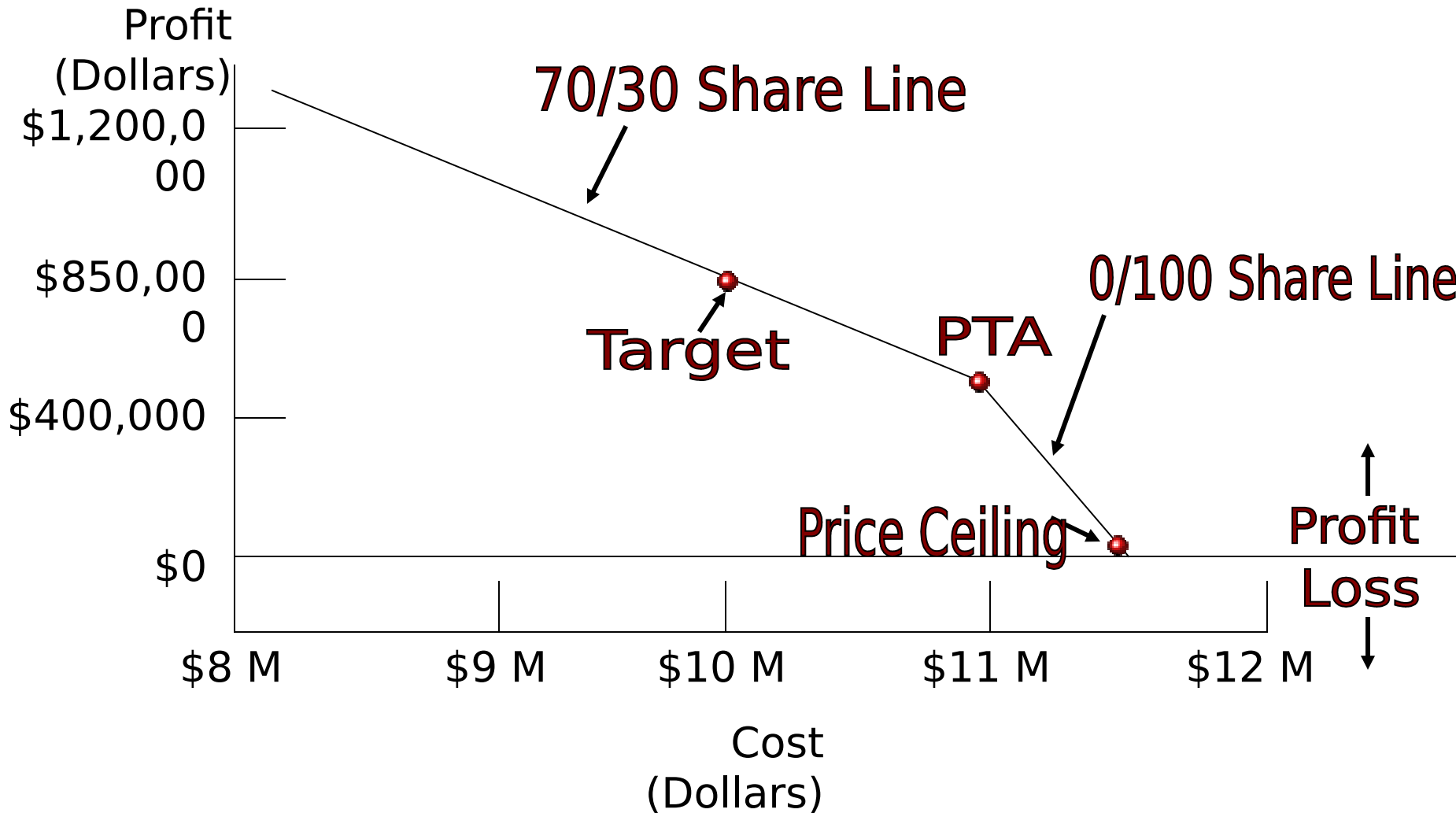
Fixed Price Incentive Firm (FPIF)

Example

Target Cost	\$10,000,000
Target Profit	\$850,000
Target Price	\$10,850,000
Price Ceiling	\$11,500,000
Share Ratio	70/30



Fixed Price Incentive Firm (FPIF)





Fixed Price Incentive Firm Example

A requirement exists for a new grounds maintenance contract. Two of the items included in the requirement are snow removal during the winter months and debris collection in the summer months when the area is subject to a lot of high wind storms. You want to include a pricing arrangement that will motivate the contractor to respond quickly to clear snowdrifts and remove limbs in the street.



Fixed Price w/Award Fees (FPAF)

Description

- Establish a fixed price (including normal profit)
- Provide periodic evaluation of contractor performance against award fee plan
- Issue solicitation only when
 - Expected benefits exceed administrative costs
 - Established award-fee evaluation procedures/board
 - D&F approved at the appropriate level is required

Application

“Award-fee provisions may be used in fixed-price contracts when the Government **wishes to motivate a contractor and **other incentives cannot be used** because contractor performance **cannot be measured objectively.**”**



Fixed Price Award Fee (FPAF)



ELEMENTS

Base Fee = not allowed in FPAF

**Award Fee = Extra earned for
performance of
evaluation factors**

Award Fee Plan = “Living Document”

**Award Fee Board = Management team
which evaluates factors,
prepares report**

Fee Determining Official = Final Decision



Fixed Price w/Award Fee Example



A requirement is being worked for a copier maintenance contract. The requirements are pretty cut and dry but in the past end users have not been particularly happy with the service they've received. The contractor always leaves a mess when they are finished and seem to show up to perform maintenance when demand for the copier is greatest, creating a backlog of copying. You think potential awardees would be more responsive to more money for better service.



**Contracting
Version**

\$10,000

**True or
False?**



**Contracting
Version**

**No incentive contract may be
provided for other incentives
without also providing a Cost
incentive or constraint**



**Contracting
Version**

Answer



**Contracting
Version**

True!

FAR 16.402-1_{B1}



**Contracting
Version**

\$10,000

**True or
False?**



**Contracting
Version**

**RE: Firm Fixed Price w/ EPA
The CO should ensure contingency
allowances are included in the base
price and in any adjustments
requested by the contractor.**



**Contracting
Version**

Answer



**Contracti
ng
Version**

FALSE, Shouldn't duplicate contingencies!



**Contracting
Version**

\$25,000

**Contracts
resulting from
sealed bidding
can be only...**

- A. Firm-Fixed Price or Fixed Price w/ Award Fees**
- B. Firm-Fixed Price or Cost-Plus-Fixed Fee**
- C. Firm-Fixed Price or Fixed Price w/ Economic Price Adjustment**
- D. Firm-Fixed Price or Cost-Plus-Award Fee**



**Contracti
ng
Version**



**Contracting
Version**

Answer



**Contracti
ng
Version**

C Firm Fixed Price & Fixed Price w/ EPA!



Fixed Price w/

(Prospective/Retroactive)

Price



• Prospective

1. FFP for initial delivery period can be established

2. Re-determine price at every 12 months (or more) during future performance

3. Price Ceiling may be established to allow contractor so share risk

• Retroactive

1. ~~(Past)~~ Ceiling price

2. Award after fair billable rate is negotiated

3. Price re-determined within ceiling after completion of contract

4. Useful for R&D >\$100K

5. Price Ceiling



Firm Fixed Price, Level of Effort

Description

- **Contractor provides a specified “level of effort”**
 - Over a stated period of time
 - Work required can only be stated in general terms
- **Contract amount less than \$100K (unless higher approved)**
- **Agreed that result cannot be achieved with less effort**
- **Level of Effort agreed upon in advance**

Application

“A firm-fixed price, level-of-effort term contract is suitable for **investigation** or **study** of a **specific research** and **development** area. The product of the contract is usually a **report** showing the results achieved through the application of the required level of effort. However, **payment is based on the effort** expended rather than on the results achieved.”

FAR 16.207



Cost Reimbursement Contracts

FAR 16.3



Cost Reimbursement Contracts



Cost	Cost Plus Award Fee
Cost Sharing	Cost Plus Fixed Fee
Cost Plus Incentive Fee	



Cost Reimbursement Contracts

Description

- **For reimbursement for Allowable Incurred Cost**
- **Cannot estimate accurately enough for FP contract**
- **Obligate funds and Establish a Ceiling**

Application

Use only if:

- 1. Adequate contractor accounting system**
- 2. Appropriate Government Surveillance**
- 3. Statutory limit on the fee (FAR 15.404-4(c)(4))**
- 4. Acquisition of non-commercial items**

FAR 16.302



Cost

Description

- A cost-reimbursement contract
- Contractor receives no fee

Application

“A cost contract may be appropriate for **research** and **development** work, particularly with **nonprofit educational** institutions or other nonprofit organization, and for **facilities** contracts.”

FAR 16.302



Cost Example

There is a requirement for a study of earthquake fault lines in the eastern United States, for which universities and colleges with Geology Departments may be interested in performing. A cost contract with no fee would be appropriate in this instance since universities/colleges are not for profit organizations.



Cost Sharing

Description

- Cost-reimbursement contract
- Contractor receives no fee
- Reimbursed only for agreed-upon portion of allowable costs

Application

“A cost-sharing contract may be used when the contractor agrees to **absorb a portion of the costs, in **expectation** of substantial **compensating benefits**.”**

FAR 16.303



Cost Incentive Contracts

Description

- When Firm Fixed Price is not appropriate
- Supplies and services can be acquired at lower costs by relating profit to performance
- Delivery and Technical performance can be acquired at lower costs by relating profit to performance
- **Prohibited: Cost-Plus-Percentage-of-Cost**

Incentives used:

1. Cost Incentives
2. Performance Incentives
3. Delivery Incentives
4. Multiple Incentives

FAR 16.302



Cost-Plus-Incentive Fee

Description

- Initially negotiated fee adjusted later by formula
- **Fee Adjustment Formula based on**
Total allowable costs vs. Total target costs
- **Specifies target cost, target fee and min & max fees**
- **If Total allowable < Total target, then Fee Increases**
- **If Total Allowable > Total target, then Fee Decreases**

Application

“Appropriate for services or development and test programs when...cost reimbursement contract is necessary; and a target cost and a fee adjustment formula can be negotiated that are likely to motivate the contractor to manage effectively.”

FAR 16.405-1



Cost Plus Incentive Fee (CPIF)



ELEMENTS

Target Cost = Projected cost

Target Profit = Estimated profit for Target Cost

Price Ceiling = NTE Price

Profit Adjustment Formula = Share Line

**OR, how the contractor shares in
Cost overruns & underruns**



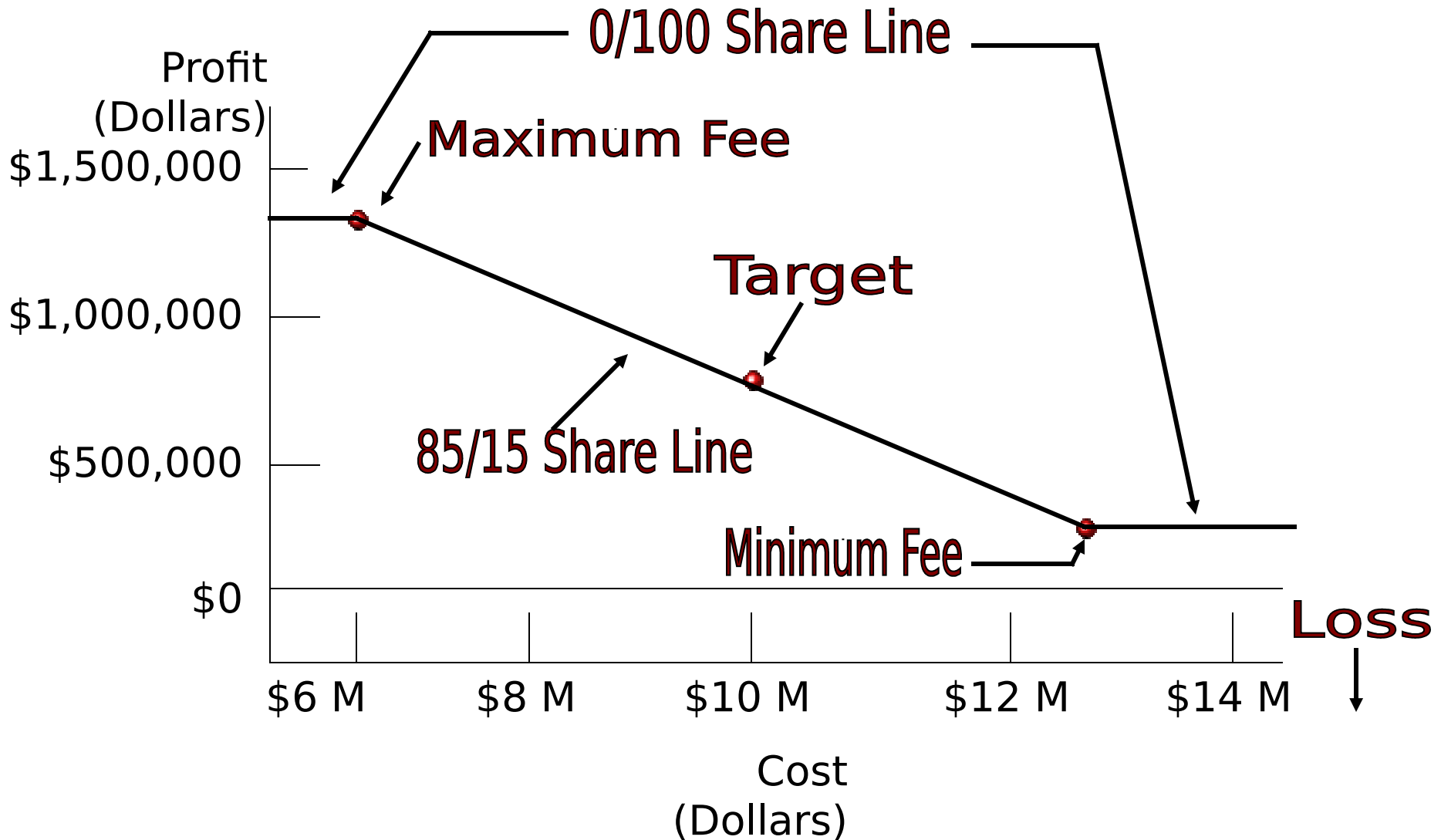
Cost Plus Incentive Fee (CPIF)

Example

Target Cost	\$10,000,000
Target Profit	\$750,000
Maximum Fee	\$1,350,000
Minimum Fee	\$300,000
Share Ratio	85/15



Cost Plus Incentive Fee (CPIF)





Cost Plus Incentive Fee Example



A requirement is being worked for a new military cargo plane. The customer wants to improve the speed and payload capacity of the aircraft, but also wants a better price. A CPIF contract would motivate the contractor to make these improvements while holding the price down.



Cost-Plus-Award Fee (CPAF)

Description

- **Cost reimbursement with base reimbursement**
- **Award fee earned in whole or part by performance**
 - Gov't unilaterally determines criteria for award fee
 - Fee paid by Gov't judgment based on contract criteria
- **Fee should be sufficient to motivate excellence**
 - Quality, Timeliness, Technical Ingenuity
 - Cost-Effective Management

Application

“The cost-plus-award-fee is suitable for use when...the likelihood of **meeting acquisition objectives** will be enhanced by using a contract that effectively **motivated** the contractor toward **exceptional** performance and provides the Government with the flexibility to **evaluate** both actual performance and the conditions under which it was achieved.



Cost Plus Award Fee



ELEMENTS

**Base Fee = What the contractor receives
even at \$0 award fee**

**Award Fee = Extra earned for
performance of
evaluation factors**

Award Fee Plan = “Living Document”

**Award Fee Board = Management team
which evaluates
factors**

Fee Determining Official = Final Decision



Cost Plus Award Fee



Motivate and reward a contractor for -

Purchase of capital assets (including machine tools) manufactured in the US, on major defense acquisitions programs; or

Management performance areas which cannot be measured objectively and where normal incentive provisions cannot be used

Logistics support

Quality

Timeliness

Ingenuity

Cost effectiveness

These are areas under the control of management which may be susceptible only to subjective measurement and evaluation.



Cost Plus Award Fee



Positives

Tailor incentives to desired performance objectives

Focus on key risk items

Stabilize long term relations

Negatives

Cumbersome and bureaucratic

Key players change - may affect continuity

Evaluations can at times appear “punitive”



Cost-Plus-Fixed Fee

Description

- Payment of negotiated fee fixed
 - **Statutory fee limitations apply (FAR 15.404-4(c)(4))**
- Fee may be adjusted as a result of contract changes
- Permits contracting efforts where contractors may otherwise be at too great a risk
- Contractor has minimal incentive to control costs
- Not used once preliminary studies indicate achievable results

Application

“The contract is for the performance of **research** or preliminary **exploration or study**, and the level of effort required is unknown; or the contract is for **development** and **test**, and using a cost-plus-incentive-fee is not practical... normally should **not be used** in development of major systems.”

FAR 16.306



Cost Plus Fixed Fee (CPFF)



ELEMENTS

- **ESTIMATED COST**
- **FIXED FEE**

Contractor is entitled the Fixed Fee...regardless of the actual cost



Cost-Plus-Fixed Fee

• “Completion” Form

1. Describes scope of

- Stating a **definite** goal or target
- Specifying an **end product**

2. Contractor required to deliver the specified end product within estimated cost as condition of payment

• “Term”

Form

1. Describes scope

- In **general** terms
- Obligates contractor to a **level-of-effort** for a specified time

2. If the Gov’t considers performance satisfactory contractor is paid fixed fee at the end of the specified time



Cost Plus Fixed Fee Example

The Navy is attempting to develop a process which, when applied to the hulls of ships will render them non-magnetic. They want to replace the older wooden-hulled mine sweeps. Market research indicates nothing of that nature is being produced. As a result, an exploratory development contract is needed.



Cost Reimbursement - Contract Clauses

Cost-type Contracts

- 52.216-7 Allowable Cost and Payment**
- 52.216-8 Fixed Fee**
- 52.216-9 Fixed Fee - Construction**
- 52.216-10 Incentive Fee**
- 52.216-11 Cost Contract - No Fee**
- 52.216-12 Cost Sharing Contract - No Fee**
- 52.216-15 Predetermined Indirect Cost Rates**
- 52.232-27 Prompt Payment for Construction Contracts**

Incentive-type Contracts

- 52.216-7 Allowable Cost and Payment**
- 52.216-10 Incentive Fee**
- 52.216-16 Incentive Price Revision - Firm Target**
- 52.216-17 Incentive Price Revision - Successive Targets**

\$50,000



**Contracting
Version**

Cost Reimbursement Contracts allow for payment of...

- A. Allowable Retroactive Costs**
- B. Allowable Projected Costs**
- C. Allowable Incurred Costs**
- D. Allowable Advanced Costs**



**Contracti
ng
Version**

Answer



**Contracting
Version**



**Contracti
ng
Version**

C. Allowable Incurred Costs!



**Contracti
ng
Version**

\$50,000

**Cost Reimbursement
Contracts should be
used only when
uncertainties don't
permit costs to be...**

- A. Projected in the government estimate**
- B. Estimated accurately enough for FP contract**
- C. Projected past 1 year**
- D. Quantified for minor parts of the scope**



**Contracti
ng
Version**

Answer



**Contracti
ng
Version**



**Contracti
ng
Version**

B. Estimated Accurately enough for FP!



**Contracti
ng
Version**

**\$100,00
0**



**Contracti
ng
Version**

Cost Reimbursement Contracts can be used only with...

- A. Adequate contractor accounting system**
- B. Appropriate Government Surveillance**
- C. Acquisition of non-commercial items**
- D. All of the above**

Answer



**Contracti
ng
Version**



**Contracti
ng
Version**

D. All of the above!



**Contracting
Version**

\$100,000

**Cost
Reimbursement
Contracts
establish an
estimated total
cost in order to.**

- A. Obligate funds and Establish a Floor**
- B. Obligate funds and Establish a Ceiling**
- C. Deobligate funds and Establish a Wall**
- D. Deobligate funds and Establish a Skylight**



**Contracti
ng
Version**

Answer



**Contracting
Version**



**Contracti
ng
Version**

B. Obligate Funds and Establish a Ceiling!

\$250,000



**Contracting
Version**

Cost & Fixed Incentive Contracts should be used when...



**Contracti
ng
Version**

- A. Firm Fixed Price is not appropriate**
- B. Supplies and services can be acquired at lower costs by relating profit to performance**
- C. Delivery and Technical performance can be acquired at lower costs by relating profit to performance**
- D. All of the above**

Answer



**Contracting
Version**



**Contracti
ng
Version**

D. All of the above!



**Contracting
Version**

\$250,000

Cost & Fixed Incentive

Contracts can use which of the following...

- A. Cost Incentives**
- B. Performance Incentives**
- C. Delivery Incentives**
- D. All of the above**



**Contracti
ng
Version**



**Contracting
Version**

Answer



**Contracti
ng
Version**

D. All of the above!



**Contracting
Version**

\$500,000

**Which contract type
is prohibited?**



**Contracti
ng
Version**

- A. Cost-Sharing**
- B. Cost-Plus-Award-Fee**
- C. Cost-Plus-Percentage-of-Cost**
- D. None of the Types Above**

Answer



**Contracting
Version**



**Contracti
ng
Version**

C. Cost-plus-percentage-of-cost!



**Contracting
Version**

\$500,000

Contracts under FAR 15 (Contract By Negotiation) can be...

- A. Firm-Fixed Price, Fixed Price w/ EPA only**
- B. Firm-Fixed Price, Cost-Plus-Award-Fee, Cost-Plus-Fixed Fee only**
- C. All types except Time & Materials / Labor-Hour**
- D. Any type or combination of types**



**Contracti
ng
Version**



**Contracting
Version**

Answer



**Contracti
ng
Version**

D. Any type or combination of types!



Other Contract Vehicles...



**Indefinite
Delivery
Time &
Materials
Labor-Hour**

**Letter
Contracts
Basic Agreements

Basic Ordering
Agreements
(BOAs)**



Indefinite Delivery - Three Types

- **Definite Quantity Contracts**
 - » Definite Quantity of supplies or services during a fixed period
- **Indefinite Quantity Indefinite Delivery (IDIQ) Contracts**
 - » Minimum & Maximum
 - » Indefinite Quantity of supplies or services during a fixed period
- **Requirements Contract**
 - » Best Estimated Quantity (BEQ)
 - » Provides for filling actual requirements by placing order during a fixed period
 - » All known government requirements (of that sort) will be placed with that contractor

FAR 16.5



Indefinite Delivery - Contract Clauses



Definite-Quantity

- 52.216-18 Ordering**
- 52.216-19 Order Limitations**
- 52.216-20 Definite Quantity**

Indefinite-Quantity

- 52.216-18 Ordering**
- 52.216-19 Order Limitations**
- 52.216-22 Indefinite Quantity**
- 52.216-27 Single or Multiple Awards (if multiple award)**
- 52.216-28 Multiple Awards for A&AS (if A&AS multiple award over 3 years and \$10)**
- 5353.216-9000 Awarding Orders Under Multiple Award Contracts (if multiple award)**

Requirements

- 52.216-18 Ordering**
- 52.216-19 Order Limitations**
- 52.216-21 Requirements**



Requirements Example

A contract is needed for maintenance and repair of hand held portable radios over the next five years. Historical data indicates between 15-20% of the radios will require some type of repair during any given year.



Time & Materials (T&M), Labor Hours

Description

- Payment for direct labor hours at a fixed hourly rate (including overhead, G&A and profit)
- Payment for materials at cost (including handling costs)
- No positive profit incentive for cost control or labor efficiency

Application

“May be used **only** when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence...may be used **(1)** only after the contracting officer executes a **determination and findings** that no other contract is suitable; and **(2)** only if the contract includes a **ceiling price** that the contractor exceeds at its own risk.

FAR 16.601



Letter Contracts



Description

- Preliminary contract that authorizes contractor to begin work immediately
- Includes (not-to-exceed) price ceiling

Application

A letter contract may be used when **(1)** the Government's interests demand that the contractor be given a binding commitment so that work can start immediately and **(2)** negotiating a definitive contract is not possible in sufficient time to meet the requirement.

FAR 16.603



Letter Contract Example



The roof has blown off the commissary warehouse
and \$3,000,000 in merchandise could be at risk



Basic Agreement & Basic Ordering Agreement



Description

- Use when multiple awards anticipated w/contractor
- Written statement of understanding containing clauses
- BOAs: Possible description of supplies and services
- Neither are contracts

Application

When a substantial number of separate contracts may be awarded to a contractor during a particular period and significant recurring negotiating problems have been experienced with the contractor.



**Contracting
Version**

\$1,000,000

**True or
False?**



**Contracti
ng
Version**

**A Time & Material contract
provides no positive profit
incentive for cost control
or labor efficiency.**

Answer



**Contracting
Version**



**Contracti
ng
Version**

True!



**Contracting
Version**

\$1,000,000



**Contracting
Version**

**A T&M contract may
not be awarded
before execution of**

- which?**
- A. Any required Determination & Findings**
 - B. Any required Funding Documents**
 - C. Any required Definitized Cost or Pricing Data**
 - D. Any required New SPS versions**

Answer



**Contracting
Version**



**Contracti
ng
Version**

A. Any Required Determination & Findings!



Questions?

